

EXHIBIT A

TO DECLARATION OF SCOTT D. TANNER, PHD.

U.S. Patent Application Ser. No. 10/614,115

**Scott D. Tanner**

**Scientific Curriculum Vitae**

**SCOTT D. TANNER**

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**BIRTHDATE:** May 4, 1953

**EDUCATION:**

**Ph.D. (Chemistry)**

York University, Toronto, Canada. Studied under the joint supervision of Professors. D.K. Bohme and J.M. Goodings. Graduated June 1980.

*Dissertation Research Topic: "Room Temperature and In Situ Studies of the Ion Chemistry of Fuel-Rich Flames: Implications for the Initiation of Soot."* This was a study intent upon the elucidation of the initial chemistry (both neutral and ionic) of soot formation in hydrocarbon flames. Mass spectrometric measurements of ion concentration profiles in atmospheric pressure flames were interpreted using the results of flowing afterglow studies of the kinetics and reaction paths of ionic reactions with flame molecules.

**B.Sc. (Honours)**

York University, Toronto, Canada. Chemistry major. Graduated June 1976.

**AWARDS:**

**W.A.E. McBryde Medal;** The Canadian Society for Chemistry, for achievement by a young scientist working in Canada. 2003

**Elsevier Award SAB;** for most important paper published during the year in *Spectrochimica Acta Part B*, 2002.

**Award of Distinction;** Manning Innovation Awards Foundation; co-recipient with Vladimir Baranov, for the innovation of the Dynamic Reaction Cell. 2001.

**Industrial Research Fellowship;** Natural Sciences and Engineering Research Council, Canada; taken at MDS Sciex, Thornhill, Canada. 1981 to 1985.

**Industrial Postdoctoral Fellowship;** Natural Sciences and Engineering Research Council, Canada; taken at SCIEX Inc., Thornhill, Canada. 1980/1981.

**Ontario Graduate Scholarships;** Government of the Province of Ontario. 1978/1979 and 1979/1980.

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## RESEARCH EXPERIENCE AND INTERESTS:

March 2005 to present: Associate Professor (Contract Limited Term): Institute of Biomaterials and Biomedical Engineering, Faculty of Applied Science and Engineering, University of Toronto.

I have established a research group within Engineering that has a multidisciplinary, cross-faculty reach and the objective of the development of bioanalytical instrumentation. The position is enabled with the support of the Faculties of Arts&Science, Engineering and Medicine, and was created to facilitate the development of a mass spectrometer-based flow cytometer proposed and funded through Genome Canada (and several co-funding agencies). The position is a 3-year appointment, coinciding with the duration of the funded project. My group, including another faculty appointee, two research associates, two professional engineers, students and postdoctoral fellows will develop the mass spectrometer detector and sample introduction instrumentation. We will collaborate with Chemistry to develop polymeric element-tagging moieties for attachment to antibodies and aptamers that are developed in collaboration with biologists both at U. of T and at McMaster. We will also collaborate with researchers at University Health Network, Ontario Cancer Institute and the Faculty of Medicine to develop methods and applications for the determination of subclassification of leukemia in patient samples, and other clinical and drug-discovery applications.

January 2001-March 2005: Principal Research Scientist: MDS Sciex, Toronto, ON Canada

Shortly after appointment to this position, I passed along my leadership responsibility for ICP-MS development to a colleague so that I could investigate new technologies that might be suitable for development at Sciex. This involved due diligence activities for companies and technologies, including in-house theoretical and experimental validation. I also continued my participation in the development of ICP-MS and methods of its use. Principal achievements for this period included the continuing development of bioanalytical applications of ICP-MS, including the conceptualization and funding of the flow cytometer project cited above, and the development of Dynamic Reaction Cell methods for the determination of radionuclides.

June 1980-December 2000: Senior Research Scientist: SCIEX Inc. and MDS Sciex, Toronto, ON Canada:

In the early 1980's I worked on the development of mobile mass spectrometer systems and their application for environmental analyses:

- participated in the development of the first commercial tandem mass spectrometer (MS/MS)
- developed a Direct Air Sampling Chemical Ionization (glow discharge) Source for determination of halocarbons and hydrocarbons in air
- participated in tracking chemical plumes in industrial areas (violators of air quality regulations) and a train derailment (to advise on residential evacuation)
- developed method of Flash Gas Chromatography-CI-MS/MS for the rapid determination of sub-picogram quantities of dioxin in soil (US EPA, Region 5)
- developed instrumentation and methods for the detection of explosives on airline passengers and luggage (US FAA) and the determination of toxic effluents in the destruction of chemical munitions (Canadian and US militaries)

By 1984 I had become interested in the design of ion optical systems for high current flow, and a prime subject for consideration was the developing technology of ICP-MS. My significant interests and achievements through 1997 include:

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- development of a computer model to calculate ion trajectories for space charge limited ion beams, and showed that space charge may be responsible for many of the phenomena observed in ICPMS
- development of novel ion optical configurations, specifically related to manipulation of the transition from plasma flow to charged particle flow
- study of the mechanisms of ionization and matrix suppression in the normal analytical plasma and the so-called "cold plasma"
- investigation of the operation of a quadrupole as a high mass resolution device in the second stability region
- lead responsibility for the development of instrumentation and methods for the ICP-MS business of the PerkinElmer Sciex Joint venture (approximately 1993 through 2001)

By mid-1997, I and a colleague had developed a quadrupole reaction cell (the DRC) and discovered the advantage of applying a bandpass defined by its stability parameters. Through 2000 my prime research focused on:

- theoretical and experimental study of the fundamentals of ion motion and reactivity in a pressurized multipole
- investigation of ion-molecule chemistry, including a collaborative study with Bohme (York U.) developing and using an ICP-SIFT for kinetic measurements
- investigation of alternate applications of a reaction cell, including modification of the temporal distribution of ions to improve signal correlation
- development of alternate spectrometries and mass spectrometers
- modification of plasma dynamics through geometric and waveform manipulation
- improvements to aerosol sample introduction
- biological applications of ICP-MS

**PUBLICATIONS in referred journals:**

- 33) *Multiple Cellular Antigen Detection by ICP-MS*, O. Ornatsky, V.I. Baranov, D.R. Bandura, S.D. Tanner, and J. Dick, *Journal of Immunological Methods* (submitted 2005).
- 32) *The effective potential is inadequate for the evaluation of the ion energy in the RF-driven quadrupole field. Why do we not care?* V.I. Baranov, D.R. Bandura and S.D. Tanner, *Journal of The American Society for Mass Spectrometry*, submitted (2004).
- 31) *Chemical Resolution of Pu<sup>+</sup> from U<sup>+</sup> and Am<sup>+</sup> Using a Bandpass Reaction Cell Inductively Coupled Plasma Mass Spectrometer*, S.D. Tanner, C. Li, V. Vais, V.I. Baranov and D.R. Bandura, *Analytical Chemistry*, **76**, 3042-3048 (2004).
- 30) *Inductively Coupled Plasma Mass Spectrometer with Axial Field in a Quadrupole Reaction Cell*, D.R. Bandura, V.I. Baranov and S.D. Tanner, *Journal of The American Society for Mass Spectrometry*, **13**, 1176 (2002).
- 29) *Simultaneous Determination of Cell Lysate Proteins at Endogenous Levels using Element-Tagged Immunoassay Coupled with ICP-MS Detection*, Z.A. Quinn, V.I. Baranov, S.D. Tanner, and J.L. Wrana, *Journal of Analytical Atomic Spectrometry*, **17**, 892 (2002).
- 28) *The Potential for Elemental Analysis in Biotechnology*, V.I. Baranov, Z.A. Quinn D.R. Bandura and S.D. Tanner, *Journal of Analytical Atomic Spectrometry*, **17**, 1148 (2002).
- 27) *Reaction Cells and Collision Cells for ICP-MS: A Tutorial Review*, S.D. Tanner, V.I. Baranov and D.R. Bandura, *Spectrochimica Acta*, **57B**, 1361-1452 (2002).
- 26) *A Sensitive and Quantitative Element-Tagged Immunoassay with ICP-MS Detection*, V.I. Baranov, Z. Quinn, D.R. Bandura and S.D. Tanner, *Analytical Chemistry*, **74**, 1629 (2002).
- 25) *Detection of Ultra-Trace Phosphorus and Sulfur by Quadrupole ICP-MS with Dynamic Reaction Cell*, D.R. Bandura, V.I. Baranov and S.D. Tanner, *Analytical Chemistry*, **74**, 1497 (2002).
- 24) *Elimination of Isobaric Interferences in ICP-MS, using Ion-Molecule Reaction Chemistry: Rb/Sr Age Determination of Magmatic Rocks, a Case Study*, L.J. Moens, F.F. Vanhaecke, D.R. Bandura, V.I. Baranov and S.D. Tanner, *Journal of Analytical Atomic Spectrometry*, **16**, 991(2001).
- 23) *Reaction Chemistry And Collisional Processes In Multipole Devices For Resolving Isobaric Interferences In ICP-MS*, D.R. Bandura, V.I. Baranov and S.D. Tanner, *Fresenius' Journal of Analytical Chemistry*, **370**, 454 (2001)
- 22) *An Inductively Coupled Plasma/Selected-Ion Flow Tube Mass Spectrometric Study of the Chemical Resolution of Isobaric Interferences*, G.K. Koyanagi, V.I. Baranov, S.D. Tanner and D.K. Bohme, *Journal of Analytical Atomic Spectrometry*, **15**, 1207 (2000).
- 21) *A Dynamic Reaction Cell for Inductively Coupled Plasma Mass Spectrometry (ICP-DRC-MS). III. Analytical Performance*, S.D. Tanner, V.I. Baranov and U. Vollkopf, *Journal of Analytical Atomic Spectrometry*, **15**, 1261 (2000).

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- 20) *Effect of Collisional Damping and Reactions in a Dynamic Reaction Cell on the Precision of Isotope Ratio Measurements*, D.R. Bandura, V.I. Baranov and S.D. Tanner, Journal of Analytical Atomic Spectrometry, **15**, 921 (2000).
- 19) *A Novel ICP/SIFT Mass Spectrometer for the Study of Reactions of Atomic and Atomic Oxide Ions*, G.K. Koyanagi, V.V. Lavrov, V. Baranov, D. Bandura, S.D. Tanner, J.W. McLaren and D.K. Bohme, International Journal of Mass Spectrometry, **194**, L1 (2000).
- 18) *A Dynamic Reaction Cell for Inductively Coupled Plasma Mass Spectrometry (ICP-DRC-MS). II. Reduction of Interferences Produced Within the Cell*, S.D. Tanner and V.I. Baranov, Journal of The American Society for Mass Spectrometry, **10**, 1083 (1999).
- 17) *A Dynamic Reaction Cell for Inductively Coupled Plasma Mass Spectrometry (ICP-DRC-MS). I. The RF-Field Energy Contribution in Thermodynamics of Ion-Molecule Reactions*, V.I. Baranov and S.D. Tanner, Journal of Analytical Atomic Spectrometry, **14**, 1133 (1999).
- 16) *Characterisation of Ionisation and Matrix Suppression in Inductively Coupled "Cold" Plasma Mass Spectrometry*, S.D. Tanner, Journal of Analytical Atomic Spectrometry, **10**, 905 (1995).
- 15) *Gas and Ion Dynamics of a Three-Aperture Gas Dynamic Vacuum Interface for Inductively Coupled Plasma-Mass Spectrometry*, S.D. Tanner, D.J. Douglas and J.B. French, Applied Spectroscopy, **48**, 1373 (1994).
- 14) *Reduction of Space Charge Effects Using a Three-Aperture Gas Dynamic Vacuum Interface for Inductively Coupled Plasma-Mass Spectrometry*, S.D. Tanner, L.M. Cousins and D.J. Douglas, Applied Spectroscopy, **48**, 1367 (1994).
- 13) *Plasma Temperature from Ion Kinetic Energies and Implications for the Source of Diatomic Oxide Ions in Inductively Coupled Plasma Mass Spectrometry*, S.D. Tanner, Journal of Analytical Atomic Spectrometry, **8**, 891 (1993).
- 12) *Space Charge in ICP-MS: Calculation and Implications*, S.D. Tanner, Spectrochimica Acta, **47B**, 809 (1992).
- 11) *Non-Spectroscopic Inter-element Interferences in Inductively Coupled Plasma Mass Spectrometry (ICP-MS)*, G.R. Gillson, D.J. Douglas, J.E. Fulford, K.W. Halligan and S.D. Tanner, Analytical Chemistry, **60**, 1472 (1988).
- 10) *The Rapid Determination of PCDD's and PCDF's in Municipal Waste Incinerator Flyash by One-Step "Jar" Extraction Followed by Low Resolution Capillary Gas Chromatography Tandem Mass Spectrometry ("Flash" GC/MS/MS)*, B.I. Shushan, S.D. Tanner, R.E. Clement and B. Bobbie, Chemosphere, **14**, 843 (1985).
- 9) *Recent Applications of Triple Quadrupole Mass Spectrometry to Trace Chemical Analysis*, B.I. Shushan, J.E. Fulford, B.A. Thomson, W.R. Davidson, L. Danylewych-May, A. Ngo, S. Nacson and S.D. Tanner, International Journal of Mass Spectrometry and Ion Physics, **46**, 225 (1983).
- 8) *Hydrocarbon Ions in Fuel-Rich  $\text{CH}_4\text{-C}_2\text{H}_2\text{-O}_2$  Flames as a Probe for the Initiation of Soot: Interpretation of the Ion Chemistry*, J.M. Goodings, S.D. Tanner and D.K. Bohme, Canadian Journal of Chemistry, **60**, 2766 (1982).

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- 7) *Hydrocarbon Ions in Fuel-Rich CH<sub>4</sub>-C<sub>2</sub>H<sub>2</sub>-O<sub>2</sub> Flames as a Probe for the Initiation of Soot: An Experimental Approach*, S.D. Tanner, J.M. Goodings and D.K. Bohme, Canadian Journal of Chemistry, **59**, 1760 (1981).
- 6) *An Experimental Study of the Reactivity of the Hydroxide Anion at Room Temperature, and its Perturbation by Hydration*, S.D. Tanner, G.I. Mackay and D.K. Bohme, Canadian Journal of Chemistry, **59**, 1615 (1981).
- 5) *An Experimental Study of Nucleophilic Addition to Formaldehyde in the Gas Phase*, D.K. Bohme, G.I. Mackay and S.D. Tanner, Journal of the American Chemical Society, **102**, 407 (1980).
- 4) *Room Temperature Study of the Kinetics of Protonation of Formaldehyde*, S.D. Tanner, G.I. Mackay and D.K. Bohme, Canadian Journal of Chemistry, **57**, 2350 (1979).
- 3) *Gas Phase Proton-Transfer Reactions of the Hydronium Ion at 298 K*, G.I. Mackay, S.D. Tanner, A.C. Hopkinson and D.K. Bohme, Canadian Journal of Chemistry, **57**, 1518 (1979).
- 2) *An Experimental Study of the Gas-Phase Kinetics of Reactions with Hydrated H<sub>3</sub>O<sup>+</sup> Ions (n=1,3) at 298 K*, D.K. Bohme, G.I. Mackay and S.D. Tanner, Journal of the American Chemical Society, **101**, 3724 (1979).
- 1) *Proton Transfer Reactions of HCO<sup>+</sup> at 298 K*, S.D. Tanner, G.I. Mackay, A.C. Hopkinson and D.K. Bohme, International Journal of Mass Spectrometry and Ion Physics, **29**, 153 (1979).

**PUBLICATIONS in non-refereed (or "lightly"-refereed) journals:**

- 5) *Theory, Design and Operation of a Dynamic Reaction Cell for Inductively Coupled Plasma Mass Spectrometry*, S.D. Tanner and V.I. Baranov, Atomic Spectrometry, **20(2)**, 45 (1999).
- 4) *Effect of Collisional Damping in the Dynamic Reaction Cell on the Precision of Isotope Ratio Measurements*, D.R. Bandura and S.D. Tanner, Atomic Spectrometry, **20(2)**, 69 (1999).
- 3) *A New Dynamic Reaction Cell for Reducing ICP-MS Interferences Using Chemical Resolution*, E.R. Denoyer, S.D. Tanner and U. Voellkopf, Spectroscopy, **14(2)**, 43 (1999).
- 2) *Determination of Trace Elements in Uranium: Practical Benefits of a New ICP-MS Lens System*, E.R. Denoyer, D. Jacques, E. Debrah and S.D. Tanner, Atomic Spectroscopy, **16**, 1 (1995).
- 1) *The Application of Cold Plasma Conditions for the Determination of Trace Levels of Fe, Ca, K, Na and Li by ICP-MS*, S.D. Tanner, M. Paul, S.A. Beres and E.R. Denoyer, Atomic Spectroscopy, **16**, 16 (1995).

**BOOK CONTRIBUTIONS:**

Scott D. Tanner

- 17) *Simultaneous Quantitation of Specific Proteins using LA ICP-MS*, Z.A. Quinn, V.I. Baranov and S. D. Tanner, in Plasma Source Mass Spectrometry: Applications and Emerging Technologies, ed. G. Holland and S.D. Tanner, The Royal Society of Chemistry, Cambridge, p3 (2003).
- 16) *New Challenges For ICP-MS Instrumentation And Data Acquisition. Solving Problems Of Real Life Biology*, V.I. Baranov, Z.A. Quinn, D.R. Bandura and S.D. Tanner, in Plasma Source Mass Spectrometry: Applications and Emerging Technologies, ed. G. Holland and S.D. Tanner, The Royal Society of Chemistry, Cambridge, p16 (2003).
- 15) *Determination of Fe, Ni, Co, Cu and Zn in High-Ca Samples Using Methane as a Reaction Cell Gas*, S.D. Tanner and D.R. Bandura, in Plasma Source Mass Spectrometry: Applications and Emerging Technologies, ed. G. Holland and S.D. Tanner, The Royal Society of Chemistry, Cambridge, p292 (2003).
- 14) *Reaction Chemistry and Collisional Processes in Multipole Devices*, S.D. Tanner, V.I. Baranov and D.R. Bandura, in Plasma Source Mass Spectrometry: The New Millenium, ed. G. Holland and S.D. Tanner, The Royal Society of Chemistry, Cambridge, p99 (2001)
- 13) *QMF Operation with Quadrupole Excitation*, V.I. Baranov, N.V. Konenkov and S.D. Tanner, in Plasma Source Mass Spectrometry: The New Millenium, ed. G. Holland and S.D. Tanner, The Royal Society of Chemistry, Cambridge, p63 (2001)
- 12) *Ion-Molecule Chemistry Solutions to the ICP-MS Analytical Challenge*, D.R. Bandura, S.D. Tanner, V.I. Baranov, G.K. Koyanagi, V.V. Lavrov and D.K. Bohme, in Plasma Source Mass Spectrometry: The New Millenium, ed. G. Holland and S.D. Tanner, The Royal Society of Chemistry, Cambridge, p130 (2001)
- 11) *Selective Thermochemistry in a Dynamic Reaction Cell*, V.I. Baranov and S.D. Tanner, in Plasma Source Mass Spectrometry: New Developments and Applications, ed. G. Holland and S.D. Tanner, The Royal Society of Chemistry, Cambridge, p34 (1999).
- 10) *Fundamental Processes Impacting Performance of an ICPMS Dynamic Reaction Cell*, S.D. Tanner and V.I. Baranov, in Plasma Source Mass Spectrometry: New Developments and Applications, ed. G. Holland and S.D. Tanner, The Royal Society of Chemistry, Cambridge, p46 (1999).
- 9) *ICP-MS Multielement Analysis at Sub-ppt Levels Applying New Instrumental Design Concepts*, U. Vollkopf, V.I. Baranov and S.D. Tanner, in Plasma Source Mass Spectrometry: New Developments and Applications, ed. G. Holland and S.D. Tanner, The Royal Society of Chemistry, Cambridge, p63 (1999).
- 8) *Fundamental Considerations in ICP-MS*, D. J. Douglas and S.D. Tanner, in Inductively Coupled Plasma Mass Spectrometry, ed. A. Montaser, VCH Publishers (1998).
- 7) *Ion Optics for ICPMS: Modeling, Intuition or Blind Luck*, S.D. Tanner, in Plasma Source Mass Spectrometry: Developments and Applications, ed. G. Holland and S.D. Tanner, The Royal Society of Chemistry, Cambridge, p13 (1997).



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- 6) *Reduction of Space Charge Effects Using a Three-Aperture Gas Dynamic Vacuum Interface for Inductively Coupled Plasma-Mass Spectrometry*, S.D. Tanner, L.M. Cousins and D.J. Douglas, in Recent Advances in Plasma Source Mass Spectrometry, ed. G. Holland, BPC Wheatons Ltd, Exeter UK, p 1 (1995).
- 5) *Experimental Studies of Ion Kinetic Energies in ICP-MS*, S.D. Tanner, in Applications of Plasma Source Mass Spectrometry II, ed. G. Holland and A.N. Eaton, The Royal Society of Chemistry, Cambridge, p222 (1993).
- 4) *The Use of a Commercially Available Atmospheric Pressure Chemical Ionization Tandem Quadrupole Mass Spectrometer for the Direct Detection of Chemical Agents and Simulants*, B.A. Petersen, S.D. Tanner, J.E. Fulford, B.I. Shushan and W.R. Davidson, Proc. of the 1985 Sci. Conf. on Chem. Defence Research, CRDC-SP-86007, USAAMCC, Aberdeen Proving Ground, Maryland, p.15(1986).
- 3) *The Application of Rapid Gas Chromatographic Tandem Mass Spectrometry in the Analysis of Complex Samples for Chlorinated Dioxins and Furans*, T. Sakuma, N. Gurprasad, S.D. Tanner, A. Ngo, W.R. Davidson, H.A. McLeod, B.P-Y Lau and J.J. Ryan in Chlorinated Dioxins and Dibenzofurans in the Total Environment II, ed. L.H.Keith, C.Rappe and G.Choudhary, 139 (1985).
- 2) *Rapid Tetrachlorodibenzodioxin (TCDD) Analysis Via a Mobile GC/MS/MS*, J.S. Smith, P.J. Marks, D. Ben-Hur, J. Laforaro, M. Urban, S.D. Tanner, B. Bobbie and S. Hazan, Hazard Water Spills Conf. Proc., Prev., Behav., Control Cleanup Spills Waste Sites, ed. J.Ludwigson, 237 (1984).
- 1) *The Instantaneous Detection of Explosives by Tandem Mass Spectrometry*, S.D. Tanner, W.R. Davidson and J.E. Fulford, Proc. of the International Symposium on Analysis and Detection of Explosives, Quantico, Virginia (1983).

**BOOKS EDITED:**

- 4) Plasma Source Mass Spectrometry: Applications and Emerging Technologies, eds. Grenville Holland and Scott D. Tanner, The Royal Society of Chemistry, Cambridge (2003).
- 3) Plasma Source Mass Spectrometry: The New Millenium, eds. Grenville Holland and Scott D. Tanner, The Royal Society of Chemistry, Cambridge (2001).
- 2) Plasma Source Mass Spectrometry: New Developments and Applications, eds. Grenville Holland and Scott D. Tanner, The Royal Society of Chemistry, Cambridge (1999).
- 1) Plasma Source Mass Spectrometry: Developments and Applications, eds. Grenville Holland and Scott D. Tanner, The Royal Society of Chemistry, Cambridge (1997).

**PATENTS (US patent numbers cited have related filings in other countries):**

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- 10) *Method and Apparatus for Flow Cytometry Linked with Elemental Analysis*,  
Vladimir I. Baranov, Dmitry R. Bandura and Scott D. Tanner.  
patent pending; US application number N/A.
- 9) *Elemental Analysis of Tagged Biologically Active Materials*,  
Vladimir I. Baranov, Scott D. Tanner, Dmitry R. Bandura and Zoe Quinn  
patent pending; US application number 10/614,115.
- 8) *Method for Phosphorus Quantitation in Biological Samples*,  
Dmitry R. Bandura, Vladimir I. Baranov and Scott D. Tanner.  
US patent number 6 875,618 (issued April 5, 2005).
- 7) *A Method of Operating a Mass Spectrometer to Suppress Unwanted Ions*,  
Dmitry R. Bandura, Vladimir I. Baranov and Scott D. Tanner.  
US patent number 6 627 912 (issued September 30, 2003).
- 6) *Elemental Analysis of Tagged Biologically Active Materials*,  
Vladimir I. Baranov, Scott D. Tanner, Dmitry R. Bandura and Zoe Quinn,  
patent pending; US application number 09/905,907.
- 5) *Method and Apparatus to Improve Temporal Response of Reaction/Collision Cells for Mass Spectrometry*,  
Scott D. Tanner, Dmitry R. Bandura, Vladimir I. Baranov and Steven A. Beres.  
US patent number 6,713,757 (issued March 30, 2004).
- 4) *Device and Method for Preventing Ion Source Gases from Entering Reaction/Collision Cells in Mass Spectrometry*,  
Scott D. Tanner, Dmitry R. Bandura and Vladimir I. Baranov.  
US patent number 6 630 665 (issued October 7, 2003);  
US patent number 6,815,667 (reissued November 9, 2004 with correct priority date)
- 3) *Bandpass Reactive Collision Cell*,  
Scott D. Tanner and Vladimir I. Baranov.  
US patent number 6 140 638 (issued October 31, 2000).
- 2) *Method and Apparatus for Plasma Mass Analysis with Reduced Space Charge Effects*,  
Scott D. Tanner, Donald J. Douglas and Lisa Cousins.  
US patent number 5 565 679 (issued October 15, 1996).
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Scott D. Tanner, Donald J. Douglas and Lisa M. Cousins.  
US Patent Number 5 381 008 (issued January 10, 1995).